

Title (en)

Predrive circuit, drive circuit and display device

Title (de)

Vorstufen-steuerschaltung, Treiberschaltung und Anzeigegerät

Title (fr)

Circuit d'entrée, circuit d'attaque et circuit d'affichage

Publication

**EP 1359562 A2 20031105 (EN)**

Application

**EP 03252241 A 20030409**

Priority

- JP 2002117953 A 20020419
- JP 2002220010 A 20020729

Abstract (en)

A predrive circuit, a drive circuit and a display device which are capable of driving output elements so as to transmit control signals stably even when reference potentials generated on the output elements side turn to high voltage. A first level shift circuit (41b) outputs a flow signal (VCT1) which is an input signal according to a first level shift potential (VA1). A second level shift circuit (41c) outputs a flow signal (VCT2) which is the flow signal output from the first level shift circuit, according to a second preference potential (Vss). A level shift power supply circuit (41a) supplies the level shift potential (VA1) based on a prescribed power supply voltage (Vcc) and the second reference potential (Vss) to the first level shift circuit (41b) and the second level shift circuit (41c).

IPC 1-7

**G09G 3/28**

IPC 8 full level

**G09G 3/296** (2013.01); **H03K 19/0175** (2006.01); **G09G 3/294** (2013.01)

CPC (source: EP KR US)

**G09G 3/296** (2013.01 - EP KR US); **H03K 19/017509** (2013.01 - EP US); **G09G 3/294** (2013.01 - EP US); **G09G 3/2965** (2013.01 - EP US);  
**G09G 2310/0259** (2013.01 - EP US); **G09G 2310/0289** (2013.01 - EP US); **G09G 2310/066** (2013.01 - EP US)

Cited by

EP1847980A1; EP1450340A3; EP1826743A1; EP1821410A3; US8106855B2; US7656218B2; EP1821410A2

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR

DOCDB simple family (publication)

**EP 1359562 A2 20031105; EP 1359562 A3 20080514;** CN 100392695 C 20080604; CN 1452148 A 20031029; KR 20030083605 A 20031030;  
TW 200306516 A 20031116; TW I261216 B 20060901; US 2003197696 A1 20031023; US 7102598 B2 20060905

DOCDB simple family (application)

**EP 03252241 A 20030409;** CN 03110643 A 20030418; KR 20030024632 A 20030418; TW 92107637 A 20030403; US 41017703 A 20030410